

1 18. The storage medium of claim 16, wherein the motion estimation function generates a
2 motion vector from a sum of absolute differences in activity within the select anchor frame to
3 encode the B-frame.

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1 19. The storage medium of claim 16, wherein the motion estimation function selects the
2 temporally closest anchor frame to the B-frame as the select anchor frame.

REMARKS

Applicant respectfully requests reconsideration of the above referenced application upon entry of this response. Claims 1-19 remain pending. Claim 16 has been amended.

Drawing Objections

The drawings were objected to because of informalities with elements not being particularly identified in the Specification. The Specification, as amended above, now identifies those elements that were not identified previously. Applicant notes that element 1508 of Figure 14 was already identified on page 25, line 15. Accordingly, Applicant respectfully requests that the objections to the drawings be withdrawn.

Claim Objection

Claim 16 was objected to because of an informality. In response, Applicant has amended claim 16, as above, to correct the informality. In light of such amendment, Applicant respectfully requests that the objection to claim 16 be withdrawn.

Claim Rejections – 35 U.S.C. § 102

Claims 1-19 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,801,778 issued to Ju (*Ju*). In response, Applicant respectfully traverses the rejection of such claims.

The Examiner relies on the Background section of *Ju* to support the assertion that *Ju* anticipates claims 1-19. *Ju* discloses a brief description of convention a conventional MPEG-2 video compression scheme. In the passages relied upon by the Examiner, *Ju* discloses the well-accepted method of motion estimation wherein a predicted frame is predicted, on a macroblock by macroblock basis, using information from preceding and/or superseding frames (see, e.g., col. 2, lines 18-50; and col. 3, lines 15-19). In this regard, *Ju* is merely representative of the computationally expensive motion estimation process disclosed in the background of the pending application and, accordingly, is illustrative of the limitations in the prior art that the claimed invention was developed to overcome.

In contradistinction to the teachings of the *Ju* reference, claims 1-19 are generally directed to a simplified method of *frame-based* motion estimation. In this regard, rejected claim 1, for example, includes the feature of:

unidirectionally predicting content of each B-frame from a temporally closest anchor frame. (emphasis added)

Well-settled case law requires that in order to anticipate a claim, a single reference must teach each and every element as presented in the rejected claim. In this case, Applicant respectfully asserts that the *Ju* reference fails to anticipate, disclose or suggest the required features of unidirectionally predicting content of each B-frame from a temporally closest anchor frame.

Ju does not teach a method including the limitations of, for example, rejected claim 1.

Applicant respectfully submits that an artisan reading the *Ju* reference would simply gain a general, non-enabling familiarity with a conventional MPEG-2 macroblock-based motion estimation process. In this regard, the *Ju* reference fails to teach each and every element of the rejected claim(s) as presented in the claim. Indeed, Applicant respectfully asserts that the macroblock-based, bidirectional motion estimation process described in the *Ju* reference actually teaches away from the unidirectional, frame-based motion estimation process of, for example, rejected claim 1.

Thus, in light of the foregoing, Applicant respectfully asserts that the *Ju* reference fails to anticipate or render obvious that which is claimed in rejected claim 1. Accordingly, Applicant respectfully requests that the § 102(e) rejection of claim 1 be withdrawn.

Applicant submits that rejected claims 8 and 16 enjoy features analogous to those introduced above, with respect to claim 1. Accordingly, Applicant respectfully asserts that rejected claims 8 and 16 are likewise patentable over the *Ju* reference for arguments analogous to those used to distinguish claim 1 from the *Ju* reference. Thus, Applicant respectfully request that the §102(e) rejection of claims 8 and 16 be withdrawn.

Applicant notes that claims 2-7, 9-15 and 17-19 are dependent upon patentable base claims 1, 8 or 16, respectively. Accordingly, in addition to any independent basis for patentability, Applicant respectfully submits that claims 2-7, 9-15 and 17-19 are likewise patentable over the *Ju* reference by virtue of at least such dependencies. Accordingly, Applicant respectfully requests that the § 102(e) rejection of claims 2-7, 9-15 and 17-19 be withdrawn.

Conclusion


In light of the foregoing, Applicant respectfully asserts that claims 1-19 are in condition for allowance, and earnestly awaits notice thereof. In an effort to expedite prosecution of this matter, the Examiner is invited to call the undersigned counsel for the Applicant to discuss and further issues preventing allowance of the currently pending claims.

Please charge any shortages and credit any overages to our Deposit Account No. 02-2666.

Respectfully submitted,

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Appendix A: Marked-up Version of Claims

In the Claims:

Please amend the claims as follows:

- 1 16. (Amended) A storage medium comprising a plurality of executable instructions which,
- 2 when executed, cause an executing processor to implement a motion estimation function to
- 3 unidirectionally [unidirectioanlly] predict content of each of a plurality of received
- 4 bidirectionally interpolated frames (B-frames) from a select anchor frame.